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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/687,867	10/13/2000	Yojiro Tagawa	1232-4653	1291

7590 02/11/2004

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EXAMINER

LONG, HEATHER R

ART UNIT	PAPER NUMBER
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2615

DATE MAILED: 02/11/2004

6

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/687,867

Applicant(s)

TAGAWA, YOJIRO

Examiner

Heather R Long

Art Unit

2615

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 13 October 2000.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-24 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-24 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 13 October 2000 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Specification

1. The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed.

Drawings

2. Figures 11 and 12 should be designated by a legend such as --Prior Art-- because only that which is old is illustrated. See MPEP § 608.02(g). A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1-18 rejected under 35 U.S.C. 103(a) as being unpatentable over Mukai et al. (U.S. Patent 5,557,358) in view of Arai (U.S. Patent 5,049,997).

Regarding claim 1, Mukai et al. discloses in Figs. 22-24 an apparatus comprising: an image sensing sensor (40) for converting an optical image into an image signal; a viewfinder (32) for displaying the image signal obtained by the image sensing sensor; and a correction device for correcting brightness of the viewfinder in accordance to the exposure value (col. 3, lines 21-49; col. 11, lines 37-44). However, Mukai et al. fails to disclose that the correction device corrects the brightness of the viewfinder in accordance with a difference between a luminance level of the image signal obtained by the image sensing sensor, and a target luminance level.

Referring to the Arai reference, ^{Arai} Arai discloses in Fig. 3 an apparatus comprising a correction device that determines a difference between a luminance level of the image signal obtained by the image sensing sensor, and a target luminance level (col. 5, lines 34-44).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have combined the teachings of correcting brightness of the viewfinder as disclosed by Arai with Mukai et al. in order to provide an exposure control method and apparatus capable of a precise exposure control even if a main object is displaced more or less from the center of an image frame or even if the size of the main object is indefinite over consecutive scenes.

Regarding claim 2, Arai discloses in Fig. 3 an apparatus wherein the correction device obtains the luminance level of the image signal obtained by the

image sensing sensor by a first method, and obtains the target luminance level by a second method different from the first method (col. 5, lines 34-44).

Regarding claim 3, Arai discloses an apparatus wherein the first method is a method of obtaining an average luminance of the image signal obtained by the image sensing sensor (col. 5, lines 22-33).

Regarding claim 4, Arai discloses an apparatus wherein the first method is a method of obtaining a central luminance of the image signal obtained by the image sensing sensor (col. 5, lines 22-33).

Regarding claim 5, Arai discloses an apparatus wherein the second method is a method of obtaining the target luminance level in accordance with an exposure correction value (col. 4, lines 48-56).

Regarding claim 6, Arai discloses an apparatus wherein the second method is a method of obtaining the target luminance level in accordance with evaluative photometry results obtained by divisionally evaluating the luminance level of the image signal obtained by the image sensing sensor in correspondence with a plurality of positions on an image sensing surface of the image sensing sensor (col. 5, lines 23-44).

Regarding claim 7, Arai discloses in Fig. 3 an apparatus comprising: an exposure control device for sensing an image under the exposure control corresponding to the target luminance level (col. 4, lines 48-51).

Regarding claim **8**, Arai discloses an apparatus wherein the exposure control device makes the exposure control in correspondence with the luminance level of the image signal obtained by the image sensing sensor (col. 4, lines 48-56).

Regarding claim **9**, Mukai et al. discloses an apparatus wherein the correction device corrects the brightness of the viewfinder (col. 11, lines 37-44). However, Mukai et al. fails to disclose that viewfinder brightness is corrected according to the difference between the luminance level of the image signal obtained by the image sensing sensor, and the target luminance level.

Referring to the Arai reference, Arai discloses an apparatus wherein the correction device obtains the difference between the luminance level of the image signal obtained by the image sensing sensor, and the target luminance level (col. 2, lines 22-48).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have combined the teachings of correcting brightness of the viewfinder as disclosed by Arai with Mukai et al. in order to provide an exposure control method and apparatus capable of a precise exposure control even if a main object is displaced more or less from the center of an image frame or even if the size of the main object is indefinite over consecutive scenes.

Regarding claim **10**, Arai discloses in Fig. 7 an apparatus wherein the correction device corrects the brightness of the viewfinder when the difference between the luminance level of the image signal obtained by the image sensing sensor, and the target luminance level is larger than a predetermined value. This is claimed in Arai's second embodiment however it would have been obvious to one of ordinary skill in the art to have changed the comparison of smaller than in his first embodiment to greater than.

Regarding claim **11**, Arai discloses in Fig. 7 an apparatus wherein the correction device comprises an exposure control device for making exposure control in correspondence with the luminance level of the image signal obtained by the image sensing sensor when the difference between the luminance level of the image signal obtained by the image sensing sensor, and the target luminance level is larger than the predetermined value. This is claimed in Arai's second embodiment however it would have been obvious to one of ordinary skill in the art to have changed the comparison of smaller than in his first embodiment to greater than.

Regarding claim **12**, Arai discloses in Fig. 3 an apparatus wherein the correction device does not correct the brightness of the viewfinder when the difference between the luminance level of the image signal obtained by the image sensing sensor, and the target luminance level is smaller than a predetermined value (col. 5, lines 34-44).

Regarding claim **13**, Arai discloses an apparatus wherein the correction device comprises an exposure control device for making exposure control in correspondence with the target luminance level when the difference between the luminance level of the image signal obtained by the image sensing sensor, and the target luminance level is smaller than the predetermined value (col. 5, lines 34-44).

Regarding claim **14**, Mukai discloses an apparatus wherein the apparatus includes an image sensing apparatus (40) (col. 3, lines 21-34).

Regarding claim **15**, Mukai et al. discloses an apparatus wherein the apparatus includes a camera (col. 3, lines 21-34).

Regarding claim **16**, Mukai et al. discloses a control method for controlling an image sensing apparatus, comprising the step of: displaying the image signal obtained by an image sensing sensor on a viewfinder, and correcting the brightness of the viewfinder (col. 3, lines 21-49; col. 11, lines 37-44). However, Mukai et al. fails to disclose that the correction device corrects the brightness of the viewfinder in accordance with a difference between a luminance level of the image signal obtained by the image sensing sensor, and a target luminance level.

Referring to the Arai reference, Arai discloses in Fig. 3 an apparatus comprising a correction device that determines the difference between the

luminance level of the image signal obtained by the image sensing sensor, and a target luminance level (col. 5, lines 34-44).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have combined the teachings of correcting brightness of the viewfinder as disclosed by Arai with Mukai et al. in order to provide an exposure control method and apparatus capable of a precise exposure control even if a main object is displaced more or less from the center of an image frame or even if the size of the main object is indefinite over consecutive scenes.

Regarding claim 17, Mukai et al. discloses a computer program product that supplies a control program of an image sensing apparatus including a content of: displaying the image signal obtained by an image sensing sensor on a viewfinder (col. 3, lines 21-49; col. 11, lines 37-44). However, Mukai et al. fails to disclose that the correction device corrects the brightness of the viewfinder in accordance with a difference between a luminance level of the image signal obtained by the image sensing sensor, and a target luminance level.

Referring to the Arai reference, Arai discloses a computer program product that determines the difference between the luminance level of the image signal obtained by the image sensing sensor, and a target luminance level (col. 5, lines 34-44).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have combined the teachings of correcting

brightness of the viewfinder as disclosed by Arai with Mukai et al. in order to provide an exposure control method and apparatus capable of a precise exposure control even if a main object is displaced more or less from the center of an image frame or even if the size of the main object is indefinite over consecutive scenes.

Regarding claim **18**, Mukai et al. discloses a computer program product wherein the computer program product includes a storage medium (col. 20, line 26).

Conclusion

5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

- a. Fukushima et al. (U.S. Patent 5,903,303) discloses a multiple image pickup apparatus and a photometric system in a camera along with exposure amount control.
- b. Ogawa (U.S. Patent 5,341,190) discloses a zoom lens camera with an aperture that is controlled from the results of the photometric device. Ogawa also discloses that the display always displays an image with a correct exposure.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Heather R Long whose telephone number is 703-305-0681. The examiner can normally be reached on Mon. - Thurs.: 7:00 am - 4:30 pm, and every other Fri.: 7:00 am - 3:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Andrew Christensen can be reached on (703) 308-9644. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

HRL
February 9, 2004


NGOC-YEN VU
PRIMARY EXAMINER